



Indiana Soil & Water

Forest Conservation & Stewardship Strategy Forum

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Indiana Soil & Water

- Forests and water quality go hand in hand
- Forests and water quality in Indiana
 - Forest History in Indiana
 - Comparison of land uses in Indiana
- Indiana Forestry Best Management Practices
 - What are they?
 - How do they work?

Forests & Water Go Hand-in-Hand

- In the 1890's Gifford Pinchot believed forests should be valued because their effect upon climate, floods, runoff, and erosion.
- In 1897 the National Forest Commission recommended establishment of 13 forest reserves for timber, water supply, and flood prevention

Forests & Water Go Hand-in-Hand

- Indiana State Forests were created through legislation to manage the forests for watershed protection, recreation, wildlife, and timber.



Forests & Water Quality in Indiana

- Forest History in Indiana

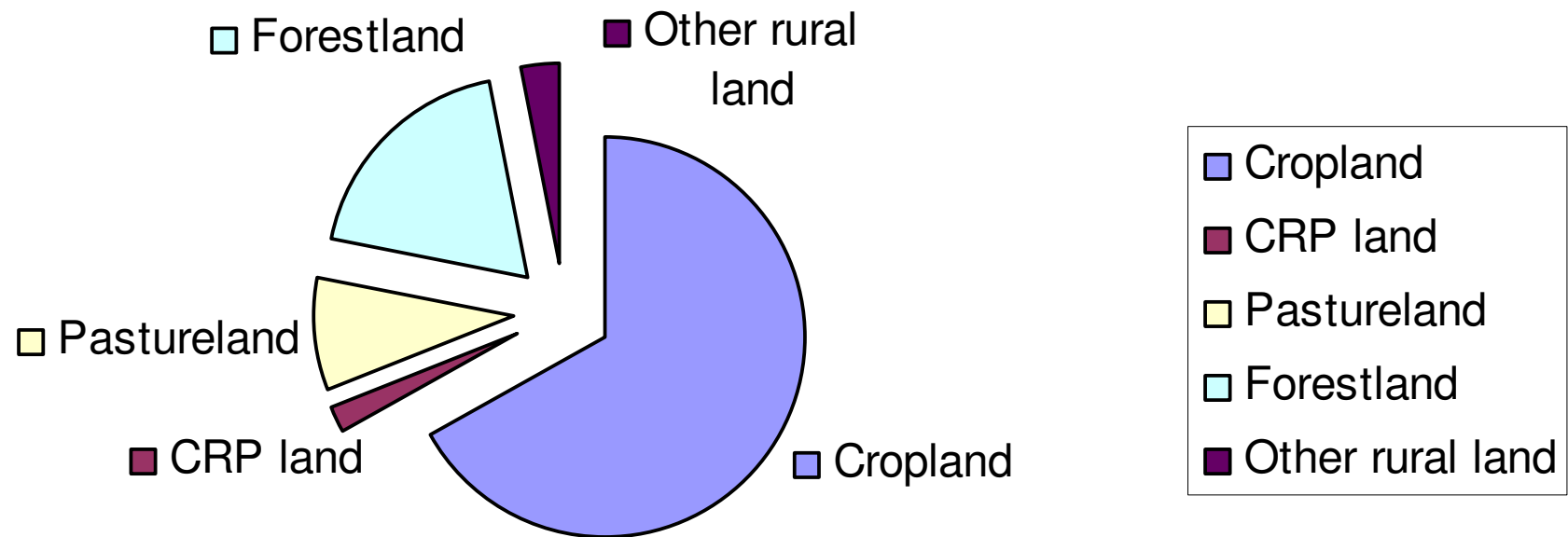
- Indiana is approximately 23,157,000 acres in total area
- In pre-settlement times approximately 85%, or 19,683,450 acres of Indiana were forested.
- By 1900, the forested acreage of Indiana had been literally cut down to an estimated 7%, or 1,620,990 acres

Forests & Water Quality in Indiana

- Forest History in Indiana
 - Since 1900 legislation in Indiana and the United States has helped Indiana get to an estimated 20%, or 4,553,800 acres, forested through programs to help landowners plant and manage their private forests, and by public entities buying or keeping abandoned land and managing it as forest (Miles, 2004; Verry et al., 2000; Tormoehlen et al., 1998).

Forests & Water Quality in Indiana

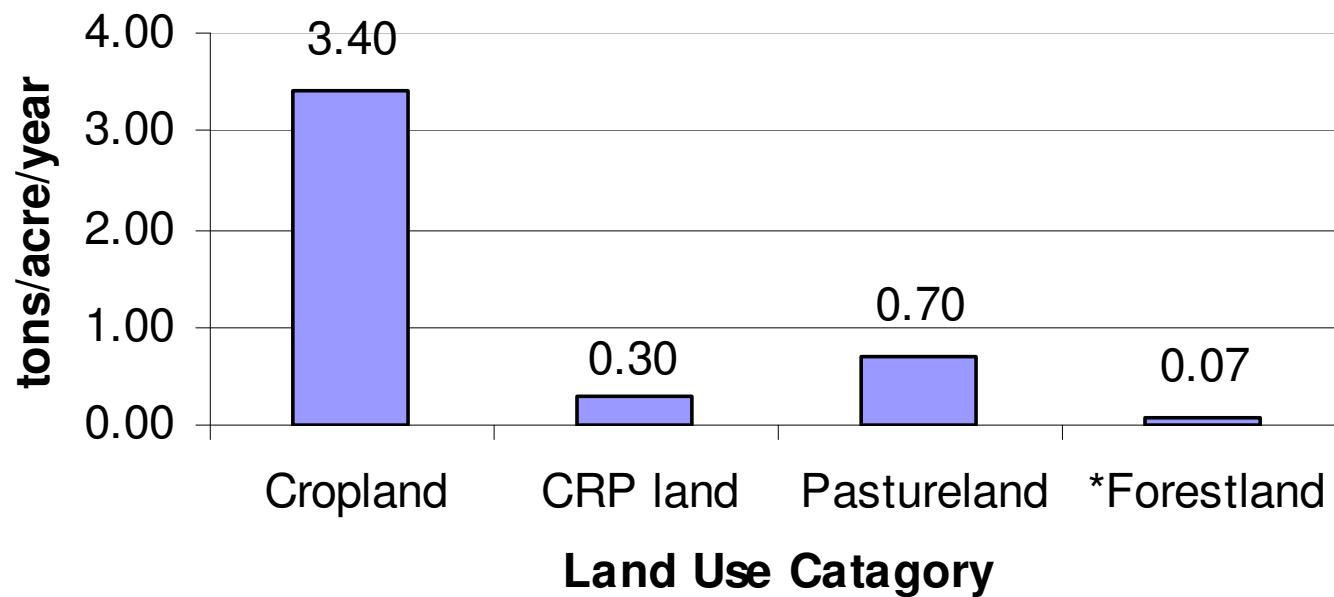
Percent of Rural land in Different Land Use Categories





Forests & Water Quality in Indiana

Total Erosion from Different Rural Land Use Categories



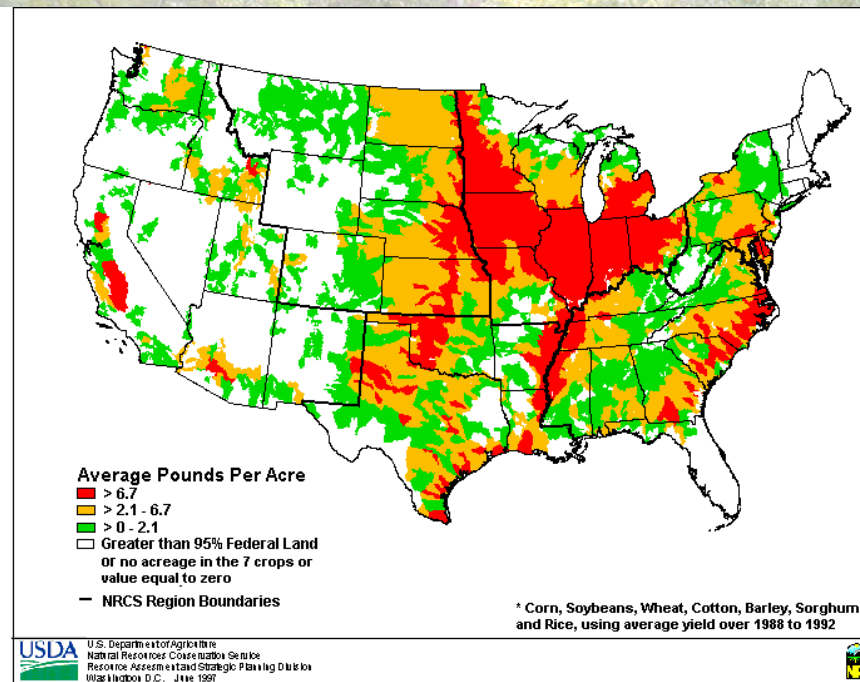




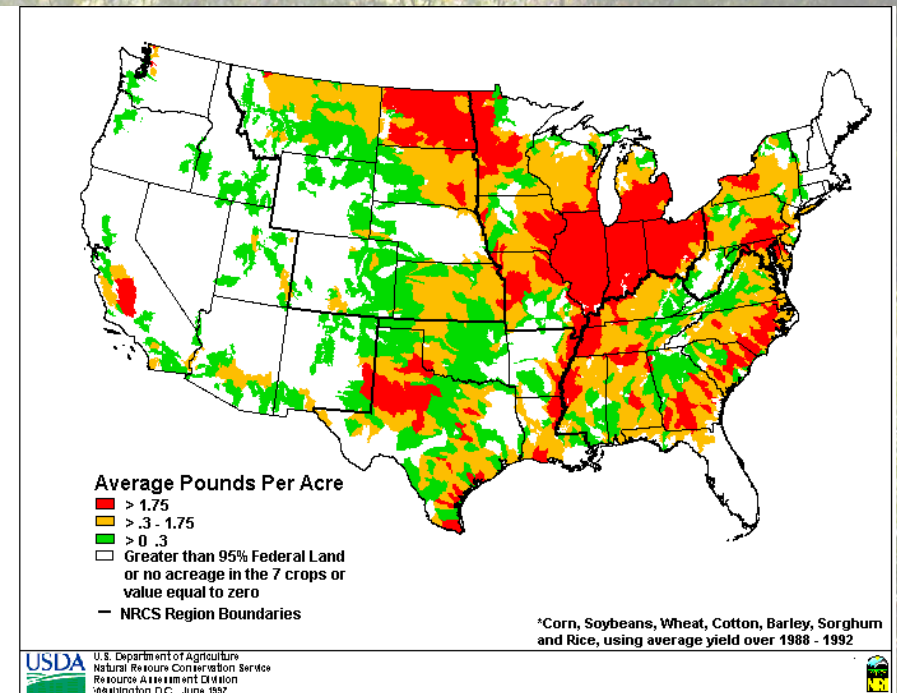


Forests & Water Quality in Indiana

Indiana major contributor to the Gulf of Mexico's Hypoxia Zone



Nitrogen Loss



Phosphorus Loss



Indiana Forestry Best Management Practices

- What are they?
 - Design and operational techniques throughout a timber harvest for:
 - Water Management - overland flow
 - Soil Management - sediment deposition



Indiana Forestry Best Management Practices

- How do they work?
 - Minimize soil disturbance
 - Planning
 - Construction and layout
 - Closeout
 - Maintain water quality
 - Using the forest floor as a filter
 - Managing water movement
 - Keeping runoff from entering the water







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